Design & Technology at Menston Primary School

Helping our children design, create and innovate to make the world a better place

At Menston Primary School, our Design & Technology curriculum inspires children to become creative problem-solvers who can respond to real and relevant challenges. Grounded in our vision of *Making the world a better place*, pupils learn to design with purpose, consider the needs of others and apply practical skills that help them shape a more sustainable, thoughtful future.

Our Vision

We aim to nurture confident designers who understand how products are developed, improved and used in the world around them. Our curriculum is ambitious, inclusive and carefully sequenced, placing a focus on high-quality curriculum design, progression and equitable access for all children.

What Design & Technology Looks Like at Menston

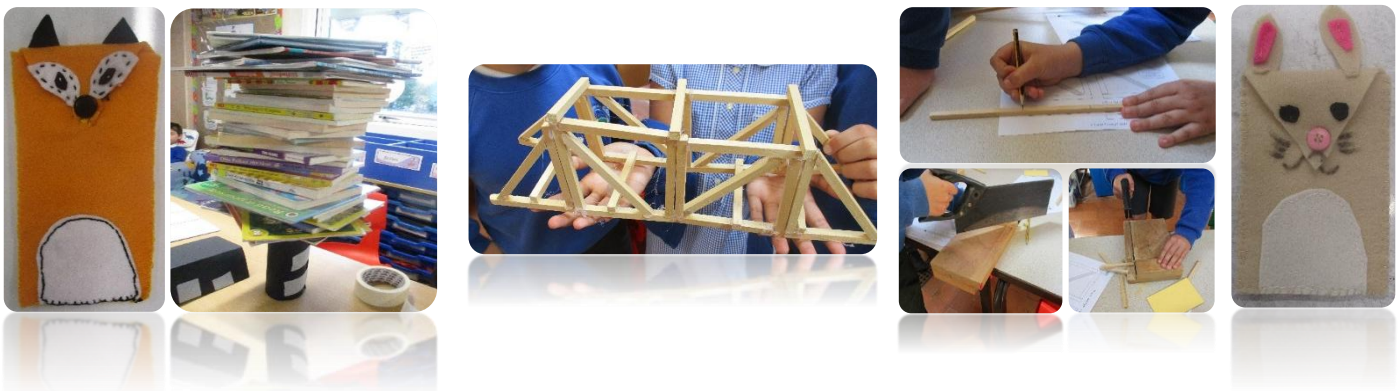
Across EYFS to Year 6, pupils study four key strands: ***Structures, Mechanisms, Food Technology*** and ***Textiles*****,** with each unit taught in a focused four-lesson sequence. Children encounter all strands across each phase, ensuring strong progression in both substantive knowledge (materials, tools, techniques) and disciplinary knowledge (designing, making, evaluating).

In KS2, children also study **STEM** and **Digital World** units, where they apply computing and electrical systems to design, program and control products, meeting and extending National Curriculum expectations.

Our curriculum exceeds the statutory requirements by offering diverse cultural contexts, high-quality *Kapow* planning (with Year 2 *PlanBee* adapted to match progression), and opportunities to explore real-world engineering and design challenges. We have selected *Kapow Primary* and *PlanBee* because they give our teachers high-quality, ready-to-teach resources with expert guidance – without dictating pedagogy – so we can focus on responsive teaching and pupil experience. Together, they offer coherent but flexible units with clear progression tools and National Curriculum mapping, allowing us to tailor projects to our context while maintaining consistent standards across the school.

Developing Substantive Knowledge

Substantive knowledge in D.T. includes materials, mechanisms, electrical systems, construction methods, nutrition, and the properties of components. Pupils progressively build understanding through hands-on projects such as *Baby Bear's Chair*, *cross-stitch cushions*, *slingshot cars*, *bridges*, *stuffed toys* and *wearable tech*. This structured sequence ensures that by KS2 pupils understand more complex systems (e.g., gears, pulleys, circuits, CAD modelling and programming).



Developing Disciplinary Knowledge

Disciplinary knowledge teaches pupils to think like designers; researching, generating ideas, creating prototypes, testing products, improving designs and evaluating against criteria. Pupils develop creativity, resilience and critical reflection in line with the National Curriculum expectations for designing, making and evaluating.

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Linked to Our Curriculum Drivers

- **Equality, diversity and tolerance:** Pupils learn that design serves diverse users with varied needs and they explore inclusive, accessible product design.
- **Creativity and critical thinking:** Every unit involves iterative problem-solving, imaginative design and thoughtful evaluation.
- **Global citizens:** Children consider sustainability, environmental impact and responsible choices when using materials and designing purposeful products.
- **Future-thinking:** Strong links to STEM, coding, electrical systems and digital design prepare pupils for future study, innovation and careers.
- **Wellbeing:** Practical learning builds confidence, teamwork, motor skills and enjoyment which supports emotional and physical development.

By the end of Year 6, our pupils can:

- research, design and develop purposeful products for a range of users;
- select appropriate tools, materials and components with increasing precision;
- apply technical knowledge to strengthen structures and incorporate complex mechanical and electrical systems;
- program, monitor and control products using computing and CAD software;
- prepare and cook nutritious dishes, understanding seasonality and food origins;
- evaluate their products against design criteria, considering sustainability, function, user experience and aesthetics;
- draw on inspiration from past and present designers to influence their own ideas;
- meet or exceed end-of-key-stage expectations in the National Curriculum for Design & Technology.

Together, this carefully sequenced curriculum ensures that pupils leave Menston Primary School as confident, resourceful and imaginative designers who are able to apply technical knowledge, solve real-world problems and make thoughtful, responsible choices about the products they create in a rapidly evolving technological world.